## What is claimed is:

- A process for the production of a stable composition comprising a mixture of sulfated estrogens, the process comprising the steps of:
  - a) reacting a sulfur trioxide complex with a mixture of alkali metal salts of estrogens to provide a mixture of sulfated alkali metal salts of estrogens;
  - b) adding a stabilizing amount of tris(hydroxymethyl)aminomethane;
  - recovering the stable composition comprising the mixture of sulfated estrogens and tris(hydroxymethyl)aminomethane.
- 2. The process according to claim 1 wherein the estrogens comprise at least two of  $\Delta^{8,9}$ -dehydroestrone, estrone, equilin or derivatives thereof.
- The process according to claim 1 wherein the sulfur trioxide complex is selected from the group consisting of sulfur trioxide-pyridine and sulfur trioxidetrimethylamine.
- 4. The process according to claim 1 wherein the alkali metal salt is selected from the group consisting of lithium, sodium, and potassium.
- The process according to claim 1 wherein steps a) and b) are performed in an apolar, aprotic solvent.
  - 6. The process of claim 5 wherein the solvent is tetrahydrofuran.
- The process according to claim 1 wherein all steps are performed in a single reaction vessel.

- 8. The process according to claim 1 wherein the mixture of sulfated estrogens are produced in a specific ratio by starting with a specific ratio of at least two of  $\Delta^{8.9}$ -dehydroestrone, estrone, equilin or derivatives thereof.
- 9. The process according to claim 1 further comprising the step of obtaining the mixture of alkali metal salts of estrogens by reacting a mixture of estrogens with an alkali metal hydride in an apolar, aprotic solvent.
- 10. The process according to claim 9 wherein the sulfur trioxide complex is selected from the group consisting of sulfur trioxide-pyridine and sulfur trioxide-trimethylamine.
- 11. The process according to claim 9 wherein the alkali metal salt is selected from the group consisting of lithium, sodium, and potassium.
- 12. The process according to claim 9 wherein the apolar, aprotic solvent is tetrahydrofuran.
- 13. The process according to claim 9 wherein all steps are performed in a single reaction vessel.
- 14. The process according to claim 9 wherein the sulfated estrogens are produced in a specific ratio by starting with specific ratios of  $\Delta^{8,9}$ -dehydroestrone, estrone, and derivatives thereof.
- 15. A process for the production of a stable composition comprising a mixture of sulfated estrogens, the process comprising the steps of:
  - reacting a mixture of estrogens with sodium hydride in an apolar, aprotic solvent to provide a mixture of alkali metal salts of the

estrogens;

- reacting sulfur trioxide-trimethylamine with the mixture of alkali metal salts of estrogens in an apolar, aprotic solvent to provide a mixture of sulfated alkali metal salts of estrogens;
- adding a stabilizing amount of tris(hydroxymethyl)aminomethane;
  and
- recovering the stable composition comprising the mixture of sulfated estrogens and tris(hydroxymethyl)aminomethane.
- 16. The process according to claim 15 wherein the mixture of estrogens comprises at least two of  $\Delta^{8.9}$ -dehydroestrone, estrone, equilin or derivatives thereof
- 17. The process according to claim 15 wherein the apolar, aprotic solvent is tetrahydrofuran.
- 18. The process according to claim 15 wherein all steps are performed in a single reaction vessel.
- 19. The process according to claim 15 wherein the sulfated estrogens are produced in a specific ratio by starting with a specific ratio of at least two of  $\Delta^{6.9}$ -dehydroestrone, estrone, equilin or derivatives thereof.